ABSTRACT

The invention relates to a component for producing thermoplastically moldable, biodegradable and bright polymer mixtures based on starch, with good dimensional stability in water. The dimensional stability in water and the biodegradability of said component are adjustable and the component can be used for producing sheet materials, semi-finished or finished products, for example for packagings,containers, articles required in horticultural nurseries, and for other purposes. The invention, furthermore, relates to a process for producing the component from polyvinyl acetate and alkali silicate. A suspension of polyvinyl acetate is hydrolized and saponified in the batch process in the presence of catalytic additions such as, in particular glycerol, by adding the alkali silicate and hydroxides at high temperatures. Organosilicates of high homogeneity and fineness are formed. Additions of said component in small amounts have a positive effect on the phase compatibility of the hydrophilic starch and a hydrophobic polymer such as polyvinyl acetate in the course of preparation of the blend in the extruder. The properties of the extruded products are substantially enhanced.